

Access Control List Processing in Hardware
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Dominique Alessandri

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Abstract: This diploma-thesis analyses how to process Access Control Lists (ACLs) in hardware at wirespeed using Content Addressable Memory (CAM). Also another approach based on a tree-structure is evaluated. ACLs are a major performance issue in high speed routers. Traditionally ACLs have been processed sequentially in software. The result of this method is that checking complex ACLs limits router performance to about 10,000 packets per second. The approach analyzed and described here allows parallel...
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